105/CA 175 Ex.

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FACE STANDARD

LAB.860/5/A

IF GENERATOR

Issue 15.2.1969

Serial n° 68053

FABBRICA APPARECCHIATURE PER COMUNICAZIONI ELETTRICHE-STANDARD S.p.A.
20158 MILANO - Viale Bodio 33-39 - Tel. 37.72 - 00187 ROMA - Via Abruzzi 25 - Tel. 46.34.21
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50127 FIRENZE - Via P.te di Mezzo 54 - Tel. 46.97.72 - 35100 PADOVA - C.so Milano 33 - Tel. 5.58.55
90141 PALERMO - Via M. Stabile 241 - Tel. 24.80.44 - 81024 MADDALONI - Via Campolongo - Tel. 3.42.22

5. I.F.GENERATOR

5.1. Power supply

The meter is preset to be fed by a 220 V a.c. mains.

In case that the meter must be fed at 110 V a.c., move the center connection of fuse F2 to central terminal of F1

5.2. Meters

Pulse generator FACE FGI-057
Milliwattmeter HP mod 431-B or similar
Oscilloscope Tektronix mod.595 or similar
Millivoltmeter Porter mod.626 or similar
Frequency counter HP mod.5245L or similar
Converter for counter HP mod.5253B or similar
R&S Receiver mod.ESM 180/BN 15073 or similar
Variable attenuator 0÷110 dB 50 ohm
Avometer analyzer 20 Kohm/Volt or similar

5.3. Electrical characteristics

RF output power on C.W.: 0.8 mW min.
Output power with square wave modulation: 1 mWp min.
Output frequencies: 62.1-62.9-63-63.1-63.9 MHz
Detector output voltage: 400 mVpp min.
Attenuator : 0-100 dB

5.4. Electrical checks

5.4.1. Detector calibration

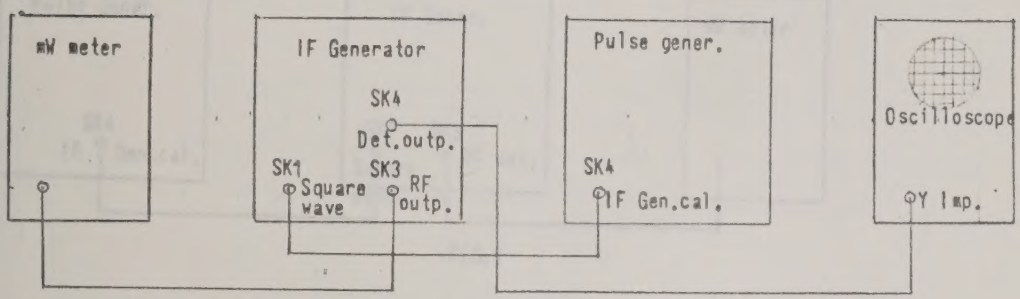


FIG.1

Connect as Fig.1

Set the switch SW1 on 63 MHz

Adjust on the Pulse Generator the "Cal.IF Gen." control to read on the bolometer 0.5 mW (1 mWp)

Adjust on IF generator the potentiometer RV1 to read on the oscilloscope an amplitude of 0.4 Vpp

5.4.2. Output frequencies

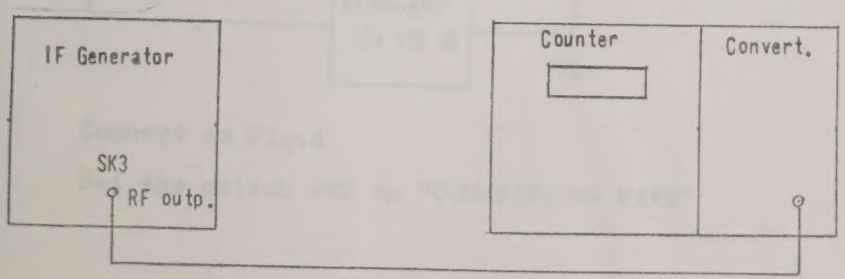


FIG.2

Connect as Fig.2

Set the switch S2 on "CONTINUOUS WAVE"

5.4.3. Output power

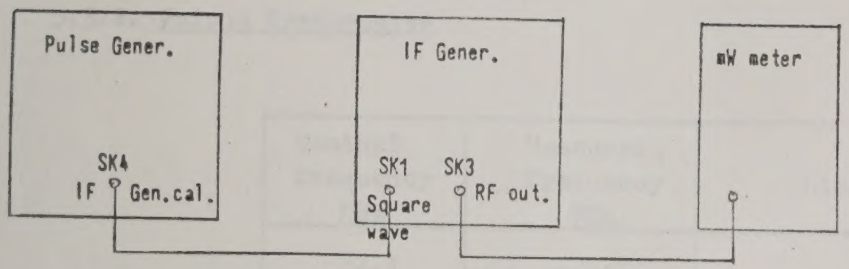


FIG.3

Connect as Fig.3

Set the switch SW2 on "SQUARE WAVE"

Set the switch SW1 on 63 MHz

5.4.4. Attenuator calibration

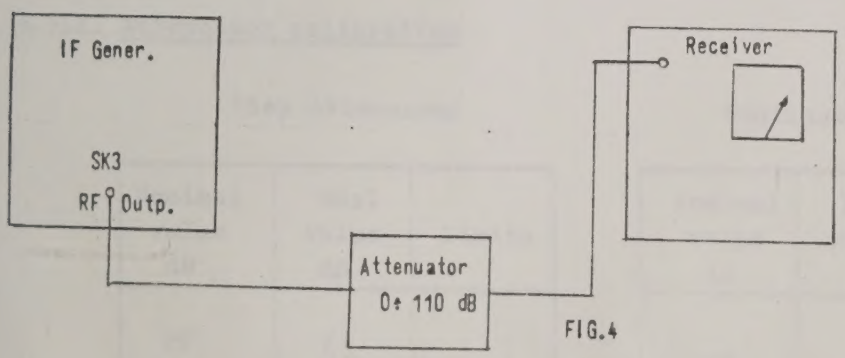
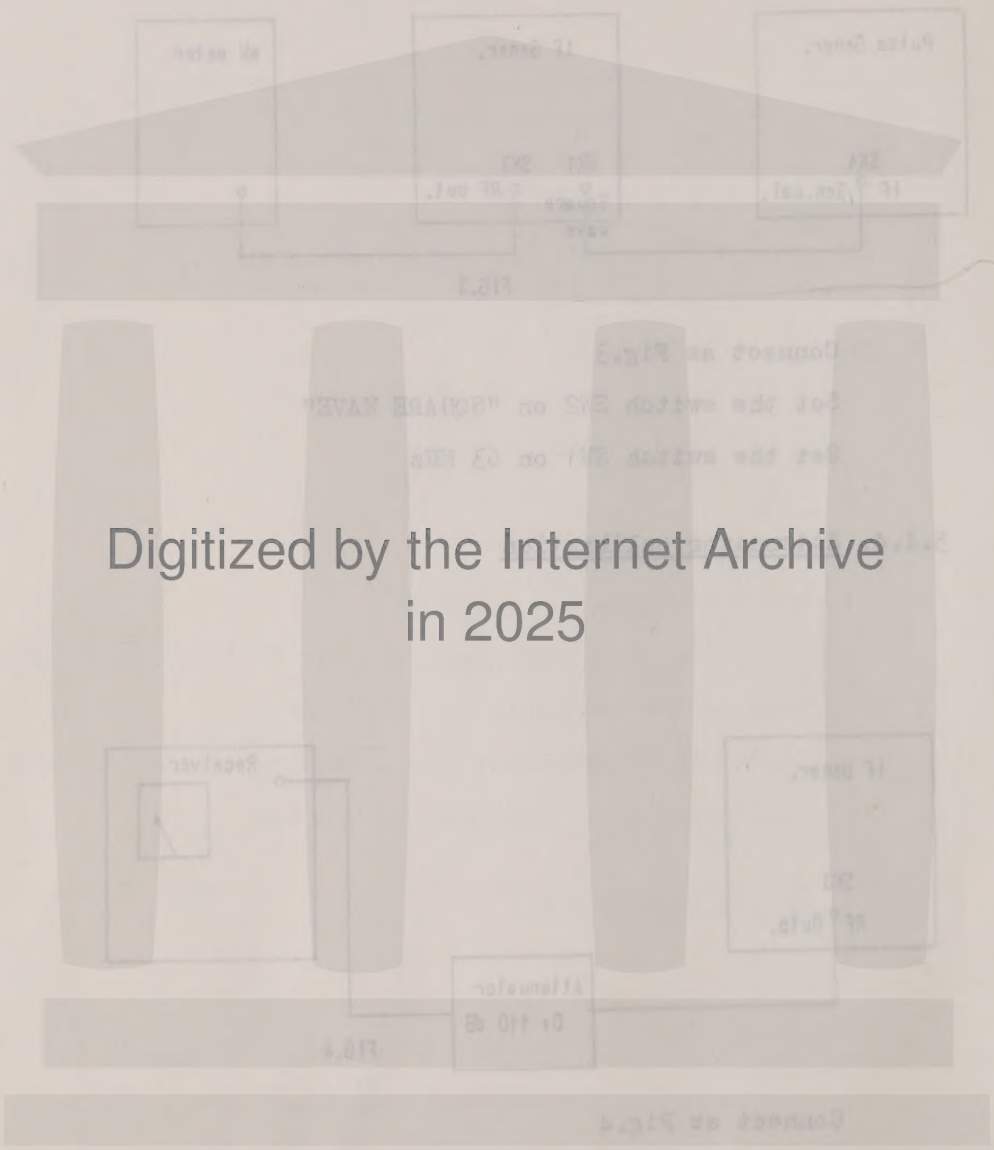


FIG.4

Connect as Fig.4

Set the switch SW2 on "COUNTINUOUS WAVE"



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5.5. Acceptance data

5.5.1. Detector output voltage

Detector output voltage for 1 mWp: (0.4 Vpp min.)

5.5.2. Output frequencies

Nominal frequency MHz	Measured frequency MHz	Limits
62.1	62,101894	
62.9	62,902631	
63	63,002018	$\pm 50.10^{-6}$
63.1	63,102723	
63.9	63,902580	

5.5.3. Output power

Output power: (1 mWp min.)

5.5.4. Attenuator calibration

Step Attenuator

Nominal value dB	Real value dB	Limits
20	23	
40	43	±5 dB
60	63	
80	83	

Continuous Attenuator

Nominal value dB	Real value dB	Limits
10	5	±5 dB
20	16	

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